



UNITED STATES PATENT AND TRADEMARK OFFICE

AM
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,038	10/05/2001	Taiko Motoi	35.C15850	3737

5514 7590 12/11/2003
FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

PATEL, ASHOK

ART UNIT PAPER NUMBER

2879

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

lon

Office Action Summary	Application No.	Applicant(s)	
	09/971,038	MOTOI ET AL.	
	Examiner	Art Unit	
	Ashok Patel	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>1101</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2879

1. Applicant's election without traverse of group I, claims 1-8 in Paper No. 10/2003 is acknowledged. Claims 9-14 are withdrawn from consideration. An action on merits including claims 1-9 appears below.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly by Wainer et al (USPN 3,626,233).

Wainer et al disclose applicant's claimed channel plate (Figure 2, anodized plate) including porous element wherein the porous element includes aluminum compound (see claim 1 which states that aluminum compound (oxide) is being formed by anodic process. Due to anodic process, the channel plate would be porous.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly by Wainer et al (USPN 3,724,066).

Art Unit: 2879

Wainer et al disclose applicant's claimed channel plate (Figure 2, anodized plate) including a porous element wherein the resultant porous element includes aluminum compound (see claim 1), which is formed by anodic process on aluminum or aluminum base alloy (see claim 7) (also see col. 1, lines 36-40 and paragraph bridging col. 6 and 7).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sink (USPN 4,475,059) in view of Wainer et al (USPN 3,724,066).

Sink et al discloses a channel plate including a a first and second electrodes (anode, cathode, see col. 2, lines 52-59),

Art Unit: 2879

and an aluminum oxide substrate (12) (as recited in applicant's claim 5), and an electron multiplier (MCP 25). Sink differs from applicant's claimed channel plate in the substrate in his device is not porous.

Wainer, in the same field of endeavor, is cited for showing that the channel plate includes a porous aluminum compound substrate (as discussed earlier in rejection of claim 1). Due to porous nature of the aluminum compound substrate, more electron flow would obviously result.

Consequently, it would have been obvious to one of ordinary skill in the art to provide Sink's channel plate including porous substrate for yielding more electron flow through the substrate.

As to claim 3, the electron multiplier in Sink's device would also emit secondary electrons due to collision due to collision of the electrons with the multiplier.

As to claims 4 and 6, although Sink does not disclose the electron multiplier having oxide grain of larger secondary electron emission coefficient, it is old and well known to those skilled in the art to provide the multiplier with secondary electron coefficient multiplier coating to yield more emission of electrons.

Art Unit: 2879

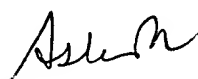
As to claims 7 and 8, since it is well known to those skilled in the art to use the channel plate in different devices such as electron multiplier, photomultiplier, electron microscope, CRT, image intensifier etc., Sink would have suggested to use his channel plate in such known devices in a desirably so as to obtain more efficiency of the devices.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Goetze et al, Zhong et al and McDonie each are cited for showing a general structure of a channel plate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 703-305-4934. The examiner can normally be reached on Monday-Thursday.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.


Ashok Patel
Primary Examiner
Art Unit 2879